

CLAIMS

We claim:

1. A photoresist composition, comprising an admixture of a phenolic resin and an onium carboxylate salt, wherein the onium carboxylate salt acts as a dissolution inhibitor.
2. The photoresist composition of claim 1, wherein the onium carboxylate is an onium cholate, onium lithocholate, or onium deoxycholate.
3. The photoresist composition of claim 2, wherein the onium cholate is an iodonium cholate.
4. The photoresist composition of claim 3, wherein the iodonium cholate is an alkyloxyphenylphenyl iodonium cholate.
5. The photoresist composition of claim 4, wherein the alkyloxyphenylphenyl iodonium cholate is octyloxyphenylphenyl iodonium cholate.
6. The photoresist composition of claim 1, wherein the phenolic resin is novolac.
7. The photoresist composition of claim 1, wherein the onium carboxylate is present in an amount of at least 20 wt%.
8. The photoresist composition of claim 1, wherein said photoresist composition can withstand pre-exposure baking temperatures of at least 125 °C.
9. The photoresist composition of claim 1, wherein the dissolution rate of said photoresist composition in aqueous base is less than about  $1.3 \times 10^{-4}$   $\mu\text{m}/\text{sec}$ .
10. A single component photoresist composition, comprising an onium cation protected carboxylate polymer.
11. The photoresist composition of claim 10, wherein the polymer is an

acrylic/acrylic acid copolymer.

12. The photoresist composition of claim 11, wherein the copolymer is a methacrylic/acrylic acid copolymer.

13. The photoresist composition of claim 10, wherein the onium cation is an  
5 iodonium cation.

14. The photoresist composition of claim 13, wherein the iodonium cation is an alkyloxyphenylphenyl iodonium cation.

15. The photoresist composition of claim 14, wherein the alkyloxyphenylphenyl cation is an octyloxyphenylphenyl iodonium cation.

10 16. The photoresist composition of claim 10, wherein the onium cation is present at a concentration of at least 25 mole%.